

052 Fire Hazards in Oxygen Systems

Through this course, the student will learn to identify and evaluate hazards in oxygen systems. The instructors will discuss safe practices in design, materials selection, and operation of oxygen systems, as well as reviewing/providing related ASTM standards to the student. As a result of attendance, the student will understand physical principles and empirical observations related to operations involving oxygen systems and the safe practices resulting from them, become familiar with the information needed to cope with fire hazards in oxygen systems, compare the BAM and ASTM test methods and safety philosophy for working with oxygen, and become familiar with these design principles through in-class exercises.

Course topics include:

- The need for oxygen compatibility
- Concepts of risk and risk management in oxygen systems/operations
- ASTM Standard Guides for use with oxygen systems/operations
- Related ASTM test methods for combustion hazards in oxygen systems
- Future Trends

This course provides 1.2 Continuing Education Units

Target Audience:

- Safety, Reliability, Quality, and Maintainability Professionals
- Engineers, scientists, technicians, purchasing agents, plant managers and operators involved in the production and use of liquid or gaseous oxygen; or oxygen enriched gas mixtures.
- Those who supply, design, or manufacture hardware for oxygen services.

Those taking this class would also benefit from the ½ day class IF involved in writing operating checklists or procedures. Unless you are involved in Design, Material Selection, Manufacturing or serve on Review Boards regarding oxygen systems you do NOT need to take this class. Technicians or others involved ONLY with day-to-day operation/maintenance should take the half-day Oxygen Systems: Operations and Maintenance class.

Instructors:
Joel Stoltzfus and/or
Sarah Smith & Steve Peralta

Date:
May 23 – 24, 2006
8:00 – 4:30

Location: MSFC
Building 4200, Room G13D

About the Instructor:

Joel Stoltzfus is project manager for ignition and combustion of metals in oxygen at the NASA White Sands Test Facility in New Mexico. He has developed many tests to determine the suitability of metals in oxygen systems, including promoted combustion, frictional heating, and particle impact. He has authored or coauthored more than 40 papers in these subject areas and is the coeditor of 3 related ASTM books.